

Application No. 10/525,897

In the claims

1. (Currently amended) A device Device for converting an AC voltage form the from a mains electricity supply into a DC voltage of a predetermined level (and waveform), comprising:
a rectifier circuit for to connecting to the mains electricity supply;
a switching circuit connected to the rectifier circuit and through which current flows;
a main transformer through which current flows connected to the switching circuit and having a secondary winding; and
an auxiliary transformer which is connected to the switching circuit and the that has a secondary winding of which is with connecting terminals coupled in series to the secondary winding of the main transformer such that the current through the switching circuit and the main transformer is limited to a predetermined value.

2. (Currently amended) The device Device as claimed in claim 1, wherein further comprising a filter circuit is-connected between the rectifier circuit and the switching circuit.

3. (Currently amended) The device Device as claimed in claim 2, wherein the filter circuit comprises a number of diodes.

Claims 4 to 12 previously cancelled.

13. (Currently amended) The device Device as claimed in claim 2, wherein the filter circuit comprises at least one capacitor and one self-induction element.

14. (Currently amended) The device Device as claimed in claim 3, wherein the filter circuit further comprises at least one capacitor and one self-induction element.

15. (Currently amended) The device Device as claimed in claim 1, wherein the switching circuit comprises a power transistor having a collector and an emitter and being in common-base configuration.

16. (Currently amended) The device Device as claimed in claim 2, wherein the switching

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circuit comprises a power transistor having a collector and an emitter and being in common-base configuration.

17. (Currently amended) The device Device as claimed in claim 3, wherein the switching circuit comprises a power transistor having a collector and an emitter and being in common-base configuration.

18. (Currently amended) The device Device as claimed in claim 13, wherein the switching circuit comprises a power transistor having a collector and an emitter and being in common-base configuration.

19. (Currently amended) The device Device as claimed in claim 14, wherein the switching circuit comprises a power transistor having a base, a collector and an emitter and being in common-base configuration.

20. (Currently amended) The device Device as claimed in claim 15, wherein the switching circuit further comprises a DIAC.

21. (Currently amended) The device Device as claimed in claim 16, wherein the switching circuit further comprises a DIAC.

22. (Currently amended) The device Device as claimed in claim 17, wherein the switching circuit further comprises a DIAC.

23. (Currently amended) The device Device as claimed in claim 18, wherein the switching circuit further comprises a DIAC.

24. (Currently amended) The device Device as claimed in claim 19, wherein the switching circuit further comprises a DIAC.

25. (Currently amended) The device Device as claimed in claim 15, wherein the auxiliary transformer is connected to the ~~ollector~~ or emitter of the power transistor.

26. (Currently amended) The device Device as claimed in claim 16, wherein the auxiliary

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transformer is connected to the collector or emitter of the power transistor.

27. (Currently amended) The device Device as claimed in claim 17, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

28. (Currently amended) The device Device as claimed in claim 18, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

29. (Currently amended) The device Device as claimed in claim 19, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

30. (Currently amended) The device Device as claimed in claim 20, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

31. (Currently amended) The device Device as claimed in claim 21, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

32. (Currently amended) The device Device as claimed in claim 22, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

33. (Currently amended) The device Device as claimed in claim 23, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

34. (Currently amended) The device Device as claimed in claim 24, wherein the auxiliary transformer is connected to the collector or emitter of the power transistor.

35. (Currently amended) The device Device as claimed in claim 1, wherein the auxiliary transformer further has a diode is-connected between the connecting terminals of the secondary windings of the auxiliary transistor transformer.

36. (Currently amended) The device Device as claimed in claim 30, wherein the auxiliary transformer further has a diode is-connected between the connecting terminals of the secondary winding of the auxiliary transistor transformer.

37. (Currently amended) The device Device as claimed in claim 31, wherein the auxiliary

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transformer further has a diode is-connected between the connecting terminals of the secondary windings of the auxiliary transistor transformer.

38. (Currently amended) The device Devicee as claimed in claim 32, wherein the auxiliary transformer further has a diode is-connected between the connecting terminals of the secondary windings of the auxiliary transistor transformer.

39. (Currently amended) The device Devicee as claimed in claim 33, wherein the auxiliary transformer further has a diode is-connected between the connecting terminals of the secondary windings of the auxiliary transistor transformer.

40. (Currently amended) The device Devicee as claimed in claim 34, wherein the auxiliary transformer further has a diode is-connected between the connecting terminals of the secondary windings of the auxiliary transistor transformer.

41. (Currently amended) The device Devicee as claimed in claim 36, wherein the switching circuit further comprises a resistor is connected between the base and the collector or emitter of the power transistor.

42. (Currently amended) The device Devicee as claimed in claim 37, wherein the switching circuit further comprises a resistor is connected between the base and the collector or emitter of the power transistor.

43. (Currently amended) The device Devicee as claimed in claim 38, wherein the switching circuit further comprises a resistor is connected between the base and the collector or emitter of the power transistor.

44. (Currently amended) The device Devicee as claimed in claim 39, wherein the switching circuit further comprises a resistor is connected between the base and the collector or emitter of the power transistor.

45. (Currently amended) The device Devicee as claimed in claim 40, wherein the switching

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circuit further comprises a resistor is connected between the base and the collector or emitter of the power transistor.

46. (Currently amended) The device Devicee as claimed in claim 41, wherein the switching circuit further comprises a resistor with a temperature-dependent value is-connected between the base of the power transistor ~~on the one hand~~ and the collector or emitter ~~on the other~~.

47. (Currently amended) The device Devicee as claimed in claim 42, wherein the switching circuit further comprises a resistor with a temperature-dependent value is-connected between the base of the power transistor ~~on the one hand~~ and the collector or emitter ~~on the other~~.

48. (Currently amended) The device Devicee as claimed in claim 43, wherein the switching circuit further comprises a resistor with a temperature-dependent value is-connected between the base of the power transistor ~~on the one hand~~ and the collector or emitter ~~on the other~~.

49. (Currently amended) The device Devicee as claimed in claim 44, wherein the switching circuit further comprises a resistor with a temperature-dependent value is-connected between the base of the power transistor ~~on the one hand~~ and the collector or emitter ~~on the other~~.

50. (Currently amended) The device Devicee as claimed in claim 45, wherein the switching circuit further comprises a resistor with a temperature-dependent value is-connected between the base of the power transistor ~~on the one hand~~ and the collector or emitter ~~on the other~~.